

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A network device coupled to a network of devices, the network device comprising a hardware system configured to implement:
 - a. one or more applications;
 - b. a network layer coupled to interface with one or more other network devices;
 - c. a communications layer to provide a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices; and
 - d. an extension layer to provide document type definition extensions to the communications layer document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed.
2. (canceled)
3. (previously presented) The network device of claim 1 wherein each channel within the plurality of channels includes one or more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel.
4. (previously presented) The network device of claim 3 wherein the metadata defines attributes associated with the each channel within the plurality of channels and the content sub-channel of the one or more content sub-channels within the hierarchical data content structure.

5. (original) The network device of claim 3 wherein a first data content is associated with a first channel and a first content sub-channel within the first channel.
6. (previously presented) The network device of claim 5 wherein the first data content is associated with the first channel and the first content sub-channel according to a subject-matter of the first data content, specific subject-matter of the first channel and more specific subject-matter of the first content sub-channel.
7. (previously presented) The network device of claim 1 wherein the communications layer comprises an Information and Content Exchange protocol.
8. (original) The network device of claim 7 wherein the Information and Content Exchange protocol includes document type definitions and the document type definition extensions provide extensions to the document type definitions of the Information and Content Exchange protocol.
9. (original) The network device of claim 8 wherein the document type definition extensions are extensible markup language (XML)-based.
10. (currently amended) A method of providing data content between a first network device and one or more other network devices, the method comprising:
 - a. providing a communications protocol including document type definitions to manage data content exchange between the first network device and the one or more other network devices;
 - b. providing document type definition extensions to the communications protocol document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure;
 - c. configuring the hierarchical data content structure into a plurality of channels to store the data content, wherein the data content is selectively offered and distributed; and

- d. transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol.
- 11. (canceled)
- 12. (previously presented) The method of claim 10 further comprising configuring each channel within the plurality of channels into one or more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel.
- 13. (previously presented) The method of claim 12 wherein the metadata defines attributes associated with the each channel within the plurality of channels and the content sub-channel of the one or more content sub-channels within the hierarchical data content structure.
- 14. (original) The method of claim 12 further comprising associating a first data content with a first channel and a first content sub-channel within the first channel.
- 15. (previously presented) The method of claim 14 wherein the first data content is associated with the first channel and the first content sub-channel according to a subject-matter of the first data content, specific subject-matter of the first channel and more specific subject-matter of the first content sub-channel.
- 16. (previously presented) The method of claim 10 wherein the communications protocol comprises an Information and Content Exchange protocol.
- 17. (original) The method of claim 10 wherein the Information and Content Exchange protocol includes document type definitions and the document type definition extensions provide extensions to the document type definitions of the Information and Content Exchange protocol.

18. (original) The method of claim 17 wherein the document type definition extensions are extensible markup language (XML)-based.
19. (currently amended) An apparatus for providing data content between a first network device and one or more other network devices, the apparatus comprising a hardware system configured to implement:
 - a. means for providing a communications protocol including document type definitions to manage data content exchange between the first network device and the one or more other network devices;
 - b. means for providing document type definition extensions to the communications protocol document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure;
 - c. means for configuring the hierarchical data content structure into a plurality of channels to store the data content, wherein the data content is selectively offered and distributed; and
 - d. means for transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol.
20. (canceled)
21. (previously presented) The apparatus of claim 19 wherein the hardware system is further configured to implement means for configuring each channel within the plurality of channels into one or more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel.
22. (previously presented) The apparatus of claim 21 wherein the metadata defines attributes associated with the each channel within the plurality of channels and the content sub-

channel of the one or more content sub-channels within the hierarchical data content structure.

23. (previously presented) The apparatus of claim 21 wherein the hardware system is further configured to implement means for associating a first data content with a first channel and a first content sub-channel within the first channel.
24. (previously presented) The apparatus of claim 23 wherein the first data content is associated with the first channel and the first content sub-channel according to a subject-matter of the first data content, specific subject-matter of the first channel and more specific subject-matter of the first content sub-channel.
25. (previously presented) The apparatus of claim 19 wherein the communications protocol comprises an Information and Content Exchange protocol.
26. (original) The apparatus of claim 19 wherein the Information and Content Exchange protocol includes document type definitions and the document type definition extensions provide extensions to the document type definitions of the Information and Content Exchange protocol.
27. (original) The apparatus of claim 26 wherein the document type definition extensions are extensible markup language (XML)-based.
28. (currently amended) A network comprising:
 - a. one or more network devices; and
 - b. a first network device coupled to the one or more other network devices, the first network device comprising:
 - i. one or more applications;
 - ii. a network layer coupled to interface with the one or more other network devices;
 - iii. a communications layer to provide a communications protocol including document type definitions to manage data content exchange between the first network device and the one or more other network devices; and

- iv. an extension layer to provide document type definition extensions to the communications layer document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed.
29. (canceled)
30. (previously presented) The network of devices of claim 28 wherein each channel within the plurality of channels includes one or more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel.
31. (previously presented) The network of devices of claim 30 wherein the metadata defines attributes associated with the each channel within the plurality of channels and the content sub-channel of the one or more content sub-channels within the hierarchical data content structure.
32. (original) The network of devices of claim 30 wherein a first data content is associated with a first channel and a first content sub-channel within the first channel.
33. (previously presented) The network of devices of claim 32 wherein the first data content is associated with the first channel and the first content sub-channel according to a subject-matter of the first data content, specific subject-matter of the first channel and more specific subject-matter of the first content sub-channel.
34. (previously presented) The network of devices of claim 28 wherein the communications layer comprises an Information and Content Exchange protocol.

35. (original) The network of devices of claim 28 wherein the Information and Content Exchange protocol includes document type definitions and the document type definition extensions provide extensions to the document type definitions of the Information and Content Exchange protocol.
36. (original) The network of devices of claim 35 wherein the document type definition extensions are extensible markup language (XML)-based.
37. (previously presented) A network device coupled to a network of devices, the network device comprising a hardware system configured to implement:
 - a. one or more applications;
 - b. a network layer coupled to interface with one or more other network devices;
 - c. an Information and Content Exchange protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices; and
 - d. extensions to the document type definitions, wherein document type definitions extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed.
38. (canceled)
39. (previously presented) The network device of claim 37 wherein each channel within the plurality of channels includes one or more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel.
40. (previously presented) The network device of claim 39 wherein the metadata defines attributes associated with the each channel within the plurality of channels and the

content sub-channel of the one or more content sub-channels within the hierarchical data content structure.

41. (original) The network device of claim 39 wherein a first data content is associated with a first channel and a first content sub-channel within the first channel.
42. (previously presented) The network device of claim 41 wherein the first data content is associated with the first channel and the first content sub-channel according to a subject-matter of the first data content, specific subject-matter of the first channel and more specific subject-matter of the first content sub-channel.
43. (original) The network device of claim 37 wherein the document type definition extensions are extensible markup language (XML)-based.
44. (currently amended) A network device coupled to a network of devices, the network device comprising a hardware system configured to implement:
 - a. one or more applications;
 - b. a network layer coupled to interface with one or more other network devices;
 - c. a communications layer to provide a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices; and
 - d. an extension layer to provide document type definition extensions to the communications layer document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed, wherein each channel within the plurality of channels includes one or more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel, wherein the metadata defines attributes of

each of the plurality of channels, each of the sub-channels and each of the data content.

45. (previously presented) The network device of claim 44 wherein the metadata associated with each channel of the plurality of channels includes a title, a caption, an icon-url, an ice-element and an item-group-id.
46. (previously presented) The network device of claim 44 wherein the metadata associated with each content sub-channel includes a title, a caption, a priority, an icon-url, an ice-element and an item-group-id.
47. (previously presented) The network device of claim 44 wherein the metadata associated with each data content includes a url, a size, an ice-element and an item-id.